each longitudinal side portion of the first filter **41** and an adhesion portion **42***c* is provided on each longitudinal side portion of the second filter **42** so that the first and second filters **41** and **42** are superposed to be affixed to an attachment frame **45** made of a sheet metal shown in **FIG. 13**.

[**0111**] The attachment frame **45** has formed therein a rectangular window **45***a* for restricting the transmission region of the light beam and a pair of holes **45***b* through which pass screws for attaching the attachment frame **45** to-a support member of each of the optical units **1**L and **1**R.

[**0112**] Therefore, by inserting the screws into a pair of the holes **45***b*, the attachment frame **45** to which the filter **4** is affixed can be fixed to the support member of each of the optical units **1**L and **1**R.

[**0113**] As the adhesion portion **41***c* or **42***c*, a double-sided tape or an adhesive agent can be employed. It is preferable that each of the adhesion portions **41***c* and **42***c* be made as thin and narrow as possible. Further, the first and second filters **41** and **42** are required to be affixed or fixed so that the incident light beam is precluded from passing through each of the adhesion portions **41***c* and **42***c* to prevent the transmission rate of the filter **4** from becoming inaccurate.

[**0114**] Next, a description will be given, with reference to **FIG. 14**, of a third embodiment of the filter **4**.

[**0115**] The filter **4** of this embodiment is a combination of three filters **46** through **48** having different optical transmission rates and longitudinal lengths. The filters **46** through **48** include wedge-like notches **46***a*, **47***a*, and **48***a* of the same depth protruding from each longitudinal end portion toward each center portion thereof.

[**0116**] The longest filter **46** has a transmission rate of 25%, the second longest filter **47**, whose longitudinal ends are indicated by one dot chain lines, has a transmission rate of 50%, and the shortest filter **48**, whose longitudinal ends are indicated by broken lines, has a transmission rate of 75%. The transmission rate of the filter **4** varies slightly along the length thereof, so that a variation in the transmission rate becomes smoother.

[**0117**] Thus, if a light beam is made incident on the filter **4** so that its amount of light is distributed uniformly all over the filter **4**, the light beam passing through the filter **4** has its amount of light distributed in the Y-axial direction with a characteristic indicated by a curve **35** in **FIG. 14**.

[**0118**] However, an actual light beam made incident on the filter **4** does not have its amount of light distributed uniformly in the Y-axial direction, and therefore, the distribution of the amount of light has the characteristic indicated by the curve **51** in **FIG. 14** as in the conventional example described with reference to **FIG. 1**. Therefore, if the light beam having such a distribution of the amount of light passes through the filter **4** of this embodiment, due to the transmission rate distribution of the filter **4**, the distribution of the amount of light is averaged as indicated by a broken curve **36** in **FIG. 14** to be almost uniform in the Y-axial direction.

[**0119**] The optical transmission rates of the three filters **46** through **48** can be set so as to correct not only the distribution of the amount of light of the incident light beam but also a characteristic of the condenser lens **12** shown in **FIG. 2** or a sensitivity characteristic of each of the CCDs **13**L and **13**R. The same transmission rate may be employed by the three or two of the filters **46** through **48**, or the three filters **46** through **48** may have different transmission rates as described above. Each transmission rate can be selected freely from the range of more than 0% to less than 100%.

[**0120**] Further, the number of employed filters and the transmission rate, shape, and material (resin film, glass, plastic, etc.) of each employed filter can be freely combined so that a desired characteristic can be obtained.

[**0121**] The filter **4** may be disposed in any position in each of the optical paths through which the light beams projected from the light emitting parts **6** of the optical units **1**L and **1**R are reflected back from the retroreflective sheet **2** to be received by the respective light receiving parts **7**. However, the closer the filter **4** is disposed to the light receiving surface **13***a* of each of the CCDs **13**L and **13**R of the light receiving parts **7**, the smaller the longitudinal dimension of the filter **4** can be made. Further, the filter **4** may be provided on the side of each of the light emitting parts **6**.

[**0122**] Finally, a description will be given, with reference to **FIG. 15**, of an embodiment of an information display and input apparatus including the coordinate input and detection device according to the present invention.

[**0123**] **FIG. 15** is a perspective front-side view of a multimedia board that is the information display and input apparatus.

[**0124**] The multimedia board **80** includes a board part **81**, which is used as a large screen display for displaying a variety of information and also as a touch panel of the above-described coordinate input and detection device, a computer housing part **83** Iprovided on a caster board **82**, a video deck housing part **84** provided on the computer housing part **83**, and a printer housing part **85** provided on the video deck housing part **84**. The board part **81** is supported by a pillar provided on its backside to be provided on the printer housing part **85**. The upper surface of the printer housing part **85** is also used as a keyboard stand **86** for placing a keyboard (not shown) thereon.

[**0125**] The board part **81** includes a plasma color display that is an information display unit employing a large screen flat panel **81***a*, and the above-described coordinate input and detection device incorporated into the plasma color display. The flat panel **81***a* is also used as the above-described touch panel **10**, and the above-described pair of the optical units **1**L and **1**R are housed inside the left and right corner portions of the lower portion of a frame body **81***b* of the board part **81**, respectively. The retroreflective sheet **2** is provided on the periphery of the flat panel **81***a* except for the bottom side thereof.

[**0126**] A drive unit of the plasma color display and a controller unit of the coordinate input and detection device, which unit includes the operation part **20** shown in **FIG. 3**, are provided on the backside of the board part **81**.

[**0127**] According to the multimedia board **80**, when information is freely written to or an indication is freely provided on the screen of -the flat panel **81***a* by means of a finger or a pen, the as-written information or information corresponding to the indication can be displayed on the projector-like large screen of the board part **81**, and the information or the indication can be inputted to a computer housed in the